SF-00006-05 (4/86)

DEPARTMENT: POLLUTION CONTROL AGENCY

STATE OF MINNESOTA

Office Memorandum

DATE: June 3, 2003

TO: Lifeng Guo, Senior Hydrologist
Superfund Unit
Majors and Remediation Division

FROM: Luke Charpentier, QA Coordinator
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Environmental Outcomes Division

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SUBJECT: 2003 Sampling Plan Reilly Tar and Chemical Corporation Quality Assurance Project Plan Comments

The Quality Assurance Project Plan (QAPP) for the Reilly Tar and Chemical Corporation written by ENSR was reviewed at the request of Lifeng Guo, Senior Hydrologist of the Minnesota Pollution Control Agency. Overall the QAPP was extremely well written and is a credit to ENSR. Questions or issues with the following comments may be directed to Luke Charpentier at the above number.

1. Section A.3.A – Who is the manager for the city? Who is overall in charge of QA? Who is the QA Officer for ENSR?

2. Section A.3.C – Who is actually sampling at the site? Is this work subcontracted?

3. Section A.3.D – Is STL Denver certified in Minnesota?

4. Section A.3.E – Ensure documentation of 40 hour training, analyst training and initial demonstrations of capabilities are document.

5. Section A.4 – Add enough detail in this section that a reader can understand why wells are being sampled on site. The reference to the RAP is correct, but more detail must be given to make the QAPP more of a "stand alone" document.

6. Section A.5.A – Give details as to what has been found and analyzed for in the past on site (to include concentrations found, etc.).

7. Section A.8 – Table A-4 does not have detail on the project file. Ensure STL electronic data is readable for a minimum of ten years. Ensure the raw and calibration data are linked thereby ensuring the entire data packet can be reconstructed.

8. Section B.2.D – Discuss STL's calibration standards and consumable receipt policy.

9. Section B.3.A – Note field duplicates will be blind per Section B.2.A.4, not labeled with a "D".

10. Section B.3.B – Keep the bill of lauding from the shipping company as proof of custody in shipment.

11. Section B.3.B.3 – It is assumed the final evidence files are kept 30 years as discussed in Section A.8.C.

12. Section B.5.A – Ensure adequate sample is taken to meet the five percent MS/MSD rate.

13. Section B.5.B.1.3 – Chrysene and Benzo(e)pyrene are listed with possible average recoveries of 10 percent which does not meet the MPCA recovery requirements of 30 percent. The average recovery of matrix spike table need to be updated to reflect the 30 percent minimal requirement.

14. Section B.5.B.1.4 – The reference given is incorrect. The correct reference is A.6.B.

15. Section B.9 – Nondirect measurements were used on site as they were used for the RAP, used for well placement, and are the historical data set used for comparison. The adequacy of this data should be considered.

16. Section C.1.A.1 – Submit an audit checklist for all of the audits as described in Table C-1 (with the exception of the laboratory audit checklist, which was in the QAPP). Additionally, submit the recent laboratory audit results or discuss the audit in the yearly report.

17. Section C.1.A.4 – As a point of clarification, MPCA refers to data receiving less than a full National Functional Guidelines data audit (which includes raw data, calibration, QC, etc.) as a data review or assessment, but not as a "validation".

18. Section C.1.B – Who is the Field Team Leader? Will major corrective actions be taken when the Field Team Leader "approve(s) the corrective action" prior to gaining approval of the project manager? Reference the laboratory Corrective Action Systems SOP. A corrective actions report (CAR) form is recommended by MPCA to track CA throughout the project. This allows documentation of a CA as well as ensures the right people sign off on the CA. How is the ENSR QA Manager involved in this process?

19. Section C.2 – The referenced Table C.2 lists Peter Moore as the Field Team Coordinator, which does not correspond to Figure A-1 which, lists W. Gregg. Report all QA results in a labeled QA in the annual report. This would include data inconsistencies, personnel changes, changes to the QAPP, and major CA.

20. Section D.1.C – What percentage of data is receiving a full validation? Include a review of the case narrative for discussion of validation or other problems the lab may have had in the "limited validation" or verification of the data. Reference the tables for the specific reporting requirements as well as limits.

21. Section D.2.E, D.4, and D.5 – Reference the limits in the appropriate tables within the QAPP.

22. Section D.6 – Inform MPCA if the Completeness goal is not met to allow for assessment if resampling should take place.

23. SOP "Polynuclear Aromatic Hydrocarbons", DEN-MS-0005 - Ensure the surrogates and spike recoveries meet the MPCA minimums of 30% recovery. Also, how can 20 to 1200 ng/ml for calibration be converted to 2.5 to 300 ng/L for the final sample concentration (considering 300 is a mulitple of 4 of 1200 while 2.5 is a multiple of 8 of 20)?